

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested. Claims 23 and 24 are added, and 1-24 are pending in the application.

The Examiner's attention is directed to the Change of Address Notice submitted November 24, 2003. It is noted that the February 20, 2004 Official Action was not directed to the requested address: Applicant repeats his request to please address all future correspondence to Customer No. 20736.

Claims 1-3, 12-14, 20, and 22 stand rejected under 35 USC §102(b) in view of U.S. Patent No. 5,251,205 to Callon et al. This rejection is respectfully traversed.

Callon et al. neither discloses nor suggests the claimed features of (1) selectively performing layer 3 switching based on the determined presence of the layer 3 packet information, let alone (2) performing the claimed operations (e.g., the method steps of claim 1) or implementing the claimed components (of claim 14) in an integrated network switch.

Rather, Callon et al. merely discloses a "brouter" "B" 502 interconnecting an Ethernet link 508 connected to a router "X" 504 and an Ethernet link 510 connected to a router "Y" (col. 50, lines 61-63). As described below, however, Callon et al. does not perform layer 3 switching based on the determined presence of the layer 3 packet information, as claimed; rather, Callon et al. determines whether to perform layer 3 switching based on factors other than the presence of the layer 3 packet information.

Callon et al. explicitly specifies that the brouter 502 should function as a router (layer 3 operations) only when IP packets are sent to an Ethernet broadcast or multicast address, or when IP packets are sent to the brouter's Ethernet 48-bit address:

[H]ave the brouter follow these rules:

1. For packets which are not IP packets, act as a bridge (as before).
2. For IP packets sent to an Ethernet broadcast or multicast address, act as an IP router (as before).
3. For IP packets sent to the brouter's Ethernet 48-bit address, act as an IP router (as before)
4. For IP packets sent to a single station 48-bit address which is not the brouter's address, act as a bridge (unlike before).

(Col. 51, lines 25-33).

As shown above, Callon et al also explicitly specifies that the brouter 502 that functions as a bridge (i.e., layer 2 operations) for packets that are not IP packets, or for IP packets sent to a single station 48-bit (Ethernet) address which is not the brouter's address.

Hence, Callon et al selects between layer 2 and layer 3 switching based solely on the layer 2 Ethernet address, and not based on the presence of layer 3 packet information, as specified in claims 1 and 14.

In fact, Callon further demonstrates that it does not perform layer 3 switching based on the determined presence of the prescribed layer 3 packet information (including layer 3 source address or layer 3 destination address), by specifying a prior technique that a layer 3 packet is dropped due to the layer 2 address:

Now suppose that brouter 504 receives an IP packet which it needs to forward via brouter 506. Because router 504 thinks that it and router 506 are on the same Ethernet, router 504 simply forwards the IP packet directly, using normal Ethernet encapsulation and using the 48-bit Ethernet address of router 506 in the Ethernet header. Then brouter 502, thinking as a bridge, would say "This is an IP packet. I don't forward this as a bridge". Then brouter 502, thinking as a router says, "This is an IP packet. I know how to forward IP packets. However, this packet is sent to an Ethernet address which is not me, thus I will ignore it." The result is that the IP packet does not get forwarded as it should.

Hence, Callon demonstrates that, even in the presence of valid layer 3 information, the layer 3 packet was dropped based on the layer 2 information rather than performing layer 3 switching, as claimed.

The above description further demonstrates that Callon neither discloses nor suggests the feature in claim 14 that “each switching entry configured for storing a layer 2 network address, a layer 3 network address, and corresponding switching information”. In fact, the claimed switching solves the problem described above by Callon et al. (see, e.g., page 7, line 35 to page 8, line 7; page 9, lines 11-15 of the specification).

As apparent from the foregoing, the assertions of inherency are inconsistent with the explicit teachings of the reference. Hence, the inherency arguments are improper.

Finally, Callon neither discloses nor suggests implementation of the combined layer 2 and layer 3 switching in an integrated network switch port. Applicant stresses that the preamble language in claims 1 and 14 cannot be ignored. As acknowledged in §2111.02 of the MPEP, “[a]ny terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.” MPEP, Rev. 1, Feb. 2003, p. 2100-49 (*citing Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989); *Pac-Tec Inc. v. Amerace Corp.*, 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990); *In re Stencel*, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987)).

Further, As specified in the MPEP §2111.02, Rev. 1, Feb. 2003 at page 2100-49: “Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.” (Citing Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., (See also MPEP §2111.02, Rev. 1, Feb. 2000 at page 2100-38: “In claims directed to articles and apparatus, any

phraseology in the preamble that limits the structure of that article or apparatus must be given weight” (citing In re Stencel, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987))) (See also Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951)(preamble reciting “An abrasive article” deemed an essential limitation)).

In fact, the specification explicitly describes at page 1, lines 19-22 that a router is not the same as integrated network switch:

A router is distinguishable from an integrated network switch in that the router transfers packets by executing software routines, whereas an integrated network switch is an integrated silicon chip configured for switching data packets based on control data and switching data stored on-chip.

Hence, the recitation of an “integrated network switch” is an essential limitation that is neither disclosed nor suggested in Callon et al.

Applicant also traverses the rejection of claim 12: there is no disclosure or suggestion of the claimed first table or second table, as claimed. Further, there is no necessity for a separate table specifying subnetwork identifiers in the “Brouter”, especially since routers typically use a single routing table arranged in order of specific IP addresses followed by an address prefix encompassing the specific IP addresses. Finally, the above description of the Brouter 502 indicates that if a packet is dropped if the destination Ethernet address does not point to the Brouter 502, else layer 2 switching is used. In contrast, the claimed first table enables subnetwork-based switching as opposed to IP address-based switching, described at page 7, line 35 to page 8, line 7.

Hence, Callon simply uses either layer 2 switching or drops the packet: there is no layer 3 switching on a per-port basis that would require the claimed table based on the subnetwork identifiers, as claimed. Thus, the inherency argument is improper.

See MPEP 2112 ("The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); ... 'The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" (quoting In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999))). When the Examiner alleges that a certain result is inherent in the operation of a reference, it must appear that this is necessarily so without any doubt. Ex parte Ruskin, 95USPQ 96 (Pat. Ofc. Bd. App. 1951).

For these and other reasons, the §102 rejection should be withdrawn.

Claims 4-6 and 15 stand rejected under §103 in view of Callon et al. and U.S. Patent No. 5,987,524 to Yoshida. Claims 8-10, 16-19, and 21 stand rejected under §103 in view of Callon et al. in view of U.S. Patent No. 5,991,300 to Tappan. Claim 11 stands rejected under §103 in view of Callon, Tappan, and U.S. Patent No. 5,260,936 to Bardet et al. It is believed these dependent claims are allowable in view of the foregoing.

In view of the above, it is believed this application is and condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-0687, under Order No. 95-343, and please credit any excess fees to such deposit account.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'L. R. Turkevich', with a stylized flourish at the end.

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